

LIST OF PUBLICATIONS

Refereed Journal Papers

Wang, J., Wang, JL & Roberts, C. (2008) Investigations into a Dynamic Geocentric Datum, *Submitted to the IAG Proceedings 25 Jan 2008*

Wang, J., Wang, JL & Roberts, C. (2007) Reducing GPS carrier phase errors with emd-wavelet for precise static positioning, *Survey Review*

Wang, Y., Rizos, C., Ge, L., & Roberts, C. (2006) Designing a remote sensing image database. *Submitted to Cartography & Geographic Information Sciences*

Roberts, C.A., K. Zhang, C. Rizos, A. Kealy, L. Ge, P. Ramm, M. Hale, D.A. Kinlyside, P. Harcombe (2004) Improved Atmospheric Modelling for Large Scale High-Precision Positioning Based on GNSS CORS Networks in Australia. *Journal of Global Positioning Systems*, Vol.3, No.1-2, pp 218-225.

Li, Y., Zhang, K., Roberts, C and Murata, M. (2004) On-the-fly GPS-based attitude determination using single- and double-differenced carrier phase measurements, *GPS Solutions*, Vol. 8, Num. 2, pp93 - 102

Janssen, V., Roberts, C., Rizos, C., & Abidin, H.Z. (2002) Low-cost GPS-based volcano deformation monitoring at Mt. Papandayan, Indonesia. *Journal of Volcanology and Geothermal Research*, 115(1-2), 139-151

Janssen, V., Roberts, C., Rizos, C., & Abidin, H. (2001) Experiences with a mixed-mode GPS-based volcano monitoring system at Mt. Papandayan, Indonesia, *Geomatics Research Australasia*, 74, June, 43-58

Rizos, C., Han, S., Roberts, C., Han, X., Abidin, H.Z., Suganda, O.K., & Wirakusumah, A.D. (2000) Continuously operating GPS-based volcano deformation monitoring in Indonesia: Challenges and preliminary results In "Geodesy beyond 2000: The challenges of the first decade", Springer-Verlag, ISBN 3-540-67002-5, 361-366, *Proc. IAG General Assembly*, Birmingham, UK, 19-30 July, 1999

Roberts, C., & Rizos, C. (1998) Permanent automatic GPS deformation monitoring systems: A review of system architecture and data processing strategies. In "Advances in positioning and reference frames", Springer-Verlag, ISBN 3-540-64604-3, 375-380. *Scientific Assembly of the IAG*, Rio de Janeiro, Brazil, 3-9 September, 1997

Wong, K., Roberts, C., Han, S., Rizos, C., Hirsch, B., & Masters, E. (1996) Part 2 - GPS in support of the 1996 World Solar Challenge. *The Australian Surveyor*, 41(4), December

Refereed Conference Papers

Zhang, K., Wu, F., Wu, S., Rizos, C., Lim, S., Roberts, C., Ge, L. & Kealy, A. (2007) The Latest Development of a State-wide GNSS Network-based RTK System in Australia, International GNSS Conference, Sydney, Dec 4 - 6.

Adiyanto, F. and Roberts, C. (2007) Temporary CORS Networks for Land Reconstruction in Aceh, Sumatera, International GNSS Conference, Sydney, Dec 4 – 6

Roberts, C., McElroy, S., Kinlyside, D., Yan, T., Jones, G., Allison, S., Hendro, F. and Hoffman, S. (2007) Centimetres Across Sydney: First Results from the Sydnet CORS Network, Proceedings of SSC 2007 Spatial Sciences Revolution: The national Biennial Conference of the Spatial Sciences Institute, Hobart, May 2007.

Zhang, K., Wu, F., Rizos, C., Roberts, C., Ge, L., Yan, T., Gordini, C., Kealy, A., Hale, M., Ramm, P., Asmussen, H., Kinlyside, D. and Harcombe, P. (2006) Sparse or dense: Challenges of Australian network RTK, IGSS Symposium 2006, Holiday Inn Surfers Paradise, Australia, 17 – 21 July 2006

Roberts, C. (2005) GPS for Cadastral Surveying: Practical Considerations, Proceedings of SSC 2005 Spatial Intelligence, Innovation and Praxis: The national Biennial Conference of the Spatial Sciences Institute, Melbourne, Sept 2005.

Roberts, C., Zhang, K., Rizos, C., Kealy, A., Ge, L., Ramm, P., Hale, M., Kinlyside, D. and Harcombe, P. (2004) Improved atmospheric modelling for large scale high-precision positioning GNSS CORS in Australia, *Int. Symp. on GNSS/GPS*, Sydney, 6-8 Dec.

Roberts, C., Zhang, K., Hale, M. and Millner, J. (2003) Towards real-time network-based RTK corrections for Victoria's GPSnet, *6th Australasian Symp. on Satellite Navigation Technology & Applications*, Melbourne, Australia, 22-25 July

Zhang, K. and Roberts, C. (2003) Recent development of the Victorian high-precision permanent GPS tracking network with real-time positioning capability, *6th Australasian Symp. on Satellite Navigation Technology & Applications*, Melbourne, Australia, 22-25 July

Deo, M., Zhang, K., Roberts, C. and Talbot, N. (2003) An investigation of GPS precise point positioning methods, *6th Australasian Symp. on Satellite Navigation Technology & Applications*, Melbourne, Australia, 22-25 July

Conference Papers

- Wang, J., Wang, J.L. and Roberts, C. (2007)** Reducing carrier phase errors with EMD-Wavelet for precise GPS positioning, *U.S. Institute of Navigation National Tech. Meeting*, San Diego, California, 22-24 January.
- Roberts, C. (2006)** GNSS and the convergence of Geodesy and the Cadastre in Australia, *FIG 2006, TS33, paper 273*, Munich, Germany 9 – 13 Oct.
- Roberts, C., Zhang, K., Rizos, C., Kealy, A., Ge, L., Ramm, P., Hale, M., Kinlyside, D., and Harcombe, P (2005).** Sparse or dense: challenges of Australian network RTK, *International Symposium on GPS/GNSS 2005*, Paper No. 7A-03, HK, China.
- Roberts, C., Seynat, C., Rizos, C., Hooper, G. (2004)** Low-cost deformation measurement system for volcano monitoring, *3rd FIG Regional Conference, "Surveying the Future - Contributions to Economic, Environmental and Social Development"*, Jakarta, Indonesia, Oct 3-7, paper TS19.2
- Zhang, K. and Roberts, C. (2003)** Network-based real-time kinematic positioning system: Current development in Australia. *Geoinformatics and Surveying Conference, The Institute of Surveyors, Malaysia, 7 April.*
- Zhang, K., Roberts, C., Talbot, N., Grenfell, R., Kealy, A., Ramm, P., Hale, M., Millner, J. (2002)** Harbour Navigation and dredging operations using GPS virtual reference station system, *ISV Conference proceedings, Beechworth, 3-5 May*
- Roberts, C., Morgan, P., & Rizos, C. (2002)** Allan variance applied to time series baseline results for GPS-based deformation monitoring applications. *2nd Symp. on Geodesy for Geotechnical & Structural Applications*, Berlin, Germany, 21-24 May, 299-311
- Roberts, C., & Rizos, C. (2001)** Mitigating differential troposphere effects for GPS-based volcano monitoring. *5th Australasian Symp. on Satellite Navigation Technology & Applications*, Canberra, Australia, 20-23 July
- Tsujii, T., Rizos, C., Wang, J., Dai, L., Roberts, C., & Harigae, M. (2001)** Concept of navigation/positioning service using pseudolites on stratosphere airships. *5th Australasian Symp. on Satellite Navigation Technology & Applications*, Canberra, Australia, 20-23 July
- Roberts, C., & Rizos, C. (1999)** The trials and triumphs of installing and operating a continuous GPS-based volcano deformation monitoring system in Indonesia, *4th Australasian Symp. on Satellite Navigation Technology & Applications*, Brisbane, Australia, 20-23 July
- Rizos, C., Han, S., & Roberts, C. (1997)** Permanent automatic low-cost GPS deformation monitoring systems: Error mitigation strategies and system architecture. *10th Int. Tech. Meeting of the Satellite Division of the US Inst. of Navigation*, Kansas City, Missouri, 16-19 Sept., 909 - 917

Wong, K., Roberts, C., Han, S., Hirsch, B., Rizos, C. & Masters, E.G. (1997) GPS and GIS in support of "Sunswift" during the 1996 World Solar Car Challenge. *Proc. First Trans Tasman Surveyors Conf.*, Newcastle, Australia, 12-18 April, paper no. 21, 1-9

Rizos, C., Han, S., Roberts, C., Galas, R., & Reigber, C. (1997) Low-cost densification of permanent GPS networks for natural hazard mitigation. *Proceedings of GEODYSSEA concluding symposium*, Penang, Malaysia, 14 -18 April

Magazine Articles

Roberts, C. (2007) “Relations between the university and the profession”, letter to the editor, *Azimuth*, July.

Roberts, C. (2007) “The Surveying vs. GIS Rift”, *Coordinates*, Vol 3(6), June.

Roberts, C. (2007) Pulp Fiction: Designing a course in Surveying and Spatial Information for Gen Y, *Position*, No. 28, April - May

Roberts, C. (2006) The Eastern Suburbs Railway. *Position*, No. 24, Aug – Sep.

Roberts, C. (2000) Monitoring volcanoes in Indonesia using GPS. *Map & Measure*, 6, Jan – Feb.

Roberts, C. (1997) Solar car racing with GPS and GIS. *GIS User*, 21, Feb - Mar

Books

Roberts, C. (2002) A continuous low-cost GPS-based volcano deformation monitoring system in Indonesia, UNISURV S-73, School of Surveying and Spatial Information Systems, University of New South Wales, Australia, pp 271.

Roberts, C. (2002) A continuous low-cost GPS-based volcano deformation monitoring system in Indonesia, PhD Thesis, School of Surveying and Spatial Information Systems, University of New South Wales, Australia, pp 273.